## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



## 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1 (1007) 1

(43) International Publication Date 2 February 2006 (02.02.2006)

(10) International Publication Number WO 2006/011636 Al

(51) International Patent Classification:

GOIN 21/35 (2006.01) GOIN 13/14 (2006.01)

GOIN 22/00 (2006.01) G12B 21/06 (2006.01)

(21) International Application Number:

PCT/JP2005/014146

(22) International Filing Date: 27 July 2005 (27.07.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2004-223665

30 July 2004 (30.07.2004) JP

2005-154772 27 May 2005 (27.05.2005) JI

(71) Applicant (for all designated States except US): CANON KABUSHIKI KAISHA [JP/JP]; 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).

(72) Inventor: and

(75) Inventor/Applicant (for US only): OUCHI, Toshihiko [JP/JP]; c/o CANON KABUSHIKI KAISHA, 3-30-2, Shimomaruko, Ohta-ku, Tokyo, 1468501 (JP).

(74) Agents: OKABE, Masao et al.; No. 602, Fuji Bldg., 2-3, Marunouchi 3-chome, Chiyoda-ku, Tokyo, 1000005 (JP). (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

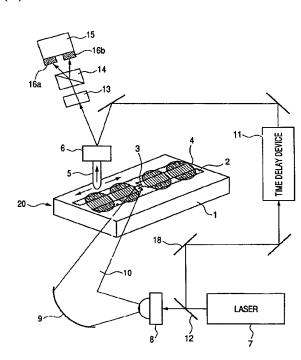
## Published:

with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SENSING APPARATUS



(57) Abstract: A sensing apparatus is provided which comprises a chip (20) in which a transmission line (2) for propagating an electromagnetic wave is formed on a substrate (1), an electromagnetic wave generator (7) for generating an electromagnetic wave (10), a coupling means (9), and a detector (5) for detecting a propagation state of an electromagnetic wave at an arbitrary location on the transmission line, of the electromagnetic wave propagating through the transmission line (2). An interaction between an object (4) disposed in the vicinity of the transmission line (2) and the electromagnetic wave is detected by the detector (5) to sense a spatial interaction state of the object (4) with the electromagnetic wave.

WO 2006/011636 A1